**Non-Calculator**

**Q1.**

Here is a map of France.




Scale: 1 cm represents 80 km

(a) What is the three-figure bearing of Lyon from Bordeaux?
Circle your answer.

005°        085°        095°        175°

**(1)**

(b) Work out the actual straight-line distance from Paris to Marseille.

______________________________________________

______________________________________________

Answer ______________________ km

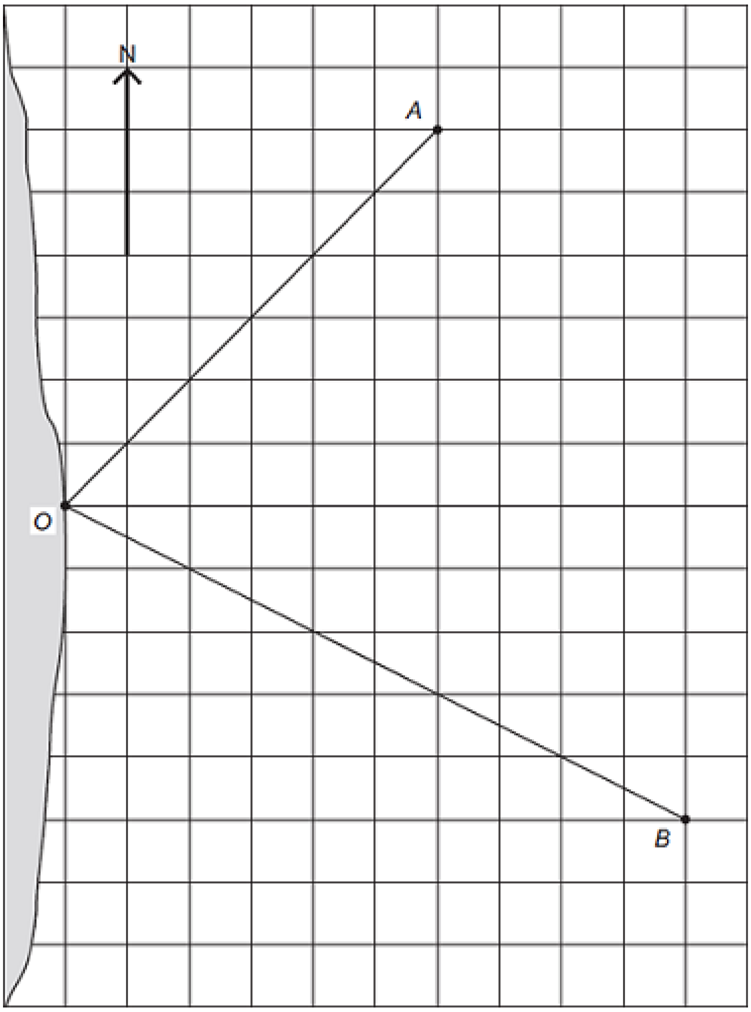
**(2)**

**(Total 3 marks)**

**Q2.**

The map shows the positions of two ships *A* and *B*, and a port *O*.

**Scale**: 1 cm represents 10 km




(a) Ship *A* is North-East of *O*.

What is the **three-figure** bearing of North-East?

Answer ____________________ °

**(1)**

(b) Ship *A* sails directly to *O*.

In which direction does it travel?

Answer ____________________

**(1)**

(c) Measure the bearing of ship *B* from *O*.

Answer ____________________ °

**(1)**

(d) How far is ship *B* from *O*?

_______________________________________________________________________________

_______________________________________________________________________________

Answer _____________________________________________ km

**(2)**

**(Total 5 marks)**

## Q3.

How many degrees does the **hour** hand on a clock turn in 9 hours?
Circle your answer.

45°   270°   540°   3240°

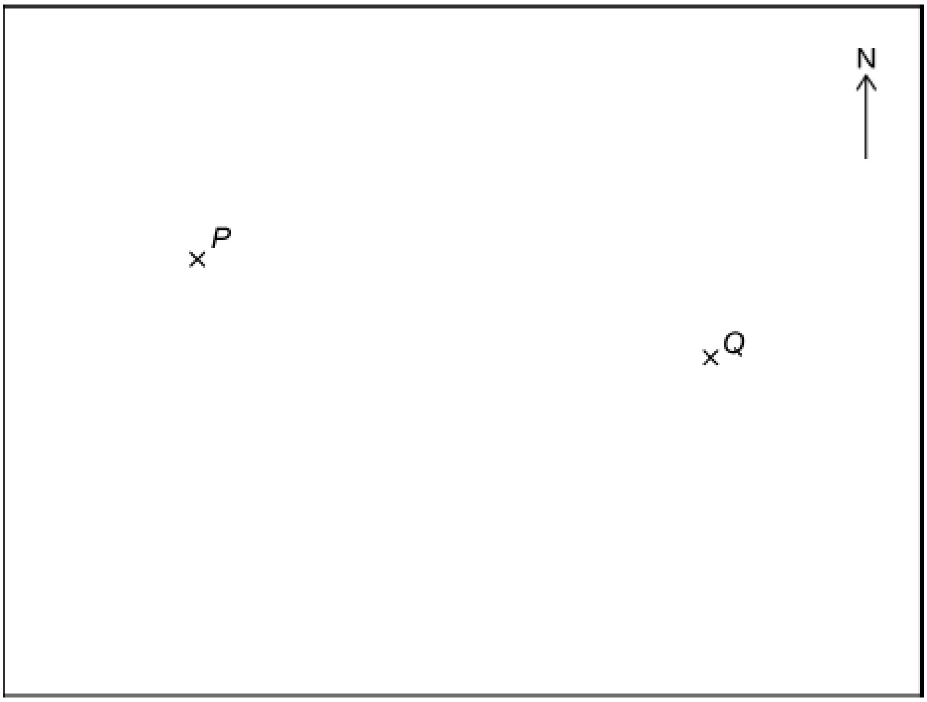
**(Total 1 mark)**

## Calculator

### Q4.

Here is a map showing two towns, *P* and *Q*.

Scale: 1 cm represents 50 km




(a) Work out the **actual** distance between towns *P* and *Q*.

Answer ______________________ km

**(2)**

(b) Town *R* is 200 km due South of town *P*.

Mark *R* on the map.

**(2)**

**(Total 4 marks)**

## Q5.

(a) The scale on a map is 1 : 250 000

What is the actual distance represented by 1 centimetre?
Give your answer in kilometres.

Answer ________________________ km

**(3)**

(b) The scale on a different map is 1 inch represents 4 miles.
A road on the map measures 6 inches to the nearest inch.

What is the shortest possible distance of the road?

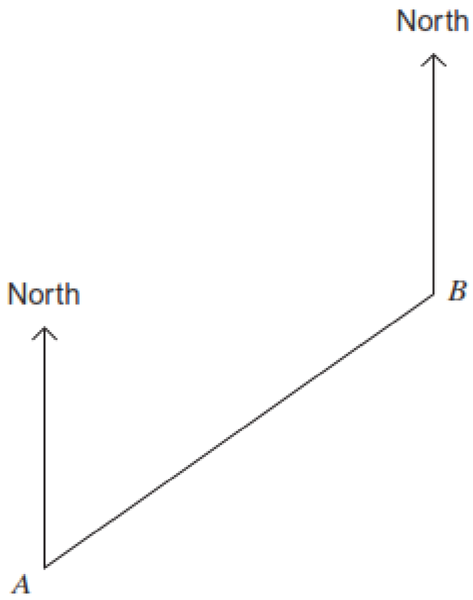
Answer ________________________ miles

**(3)**

**(Total 6 marks)**

**Q6.**

$A$ and $B$ are two towns.




(a) Measure the bearing of $B$ from A.

Answer ____________________ °

**(1)**

(b) Natasha says, “To work out a bearing in the opposite direction,

add 180° to the original bearing.”

Use your answer to part (a) and Natasha’s method to work out the bearing of $A$ from $B$.

___________________________________________

___________________________________________

Answer ____________________ °

**(2)**

(c) Give a reason why Natasha’s method can only be used for bearings up to 180°.

___________________________________________

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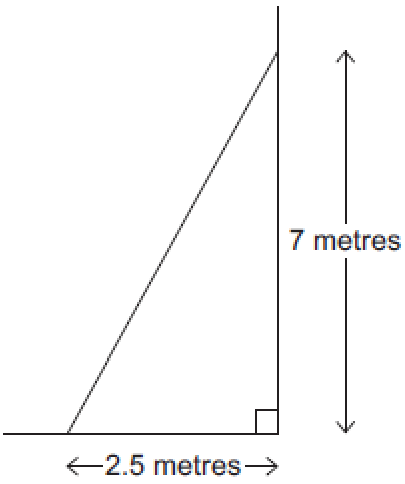
**(1)**

**(Total 4 marks)**

**Q7.**

(a) The diagram shows a sketch of a ladder on horizontal ground against a vertical wall.

Not drawn accurately




Make an accurate scale drawing.
The horizontal ground has been drawn for you.
Use a scale of 1 cm to represent 1 metre.

**(2)**

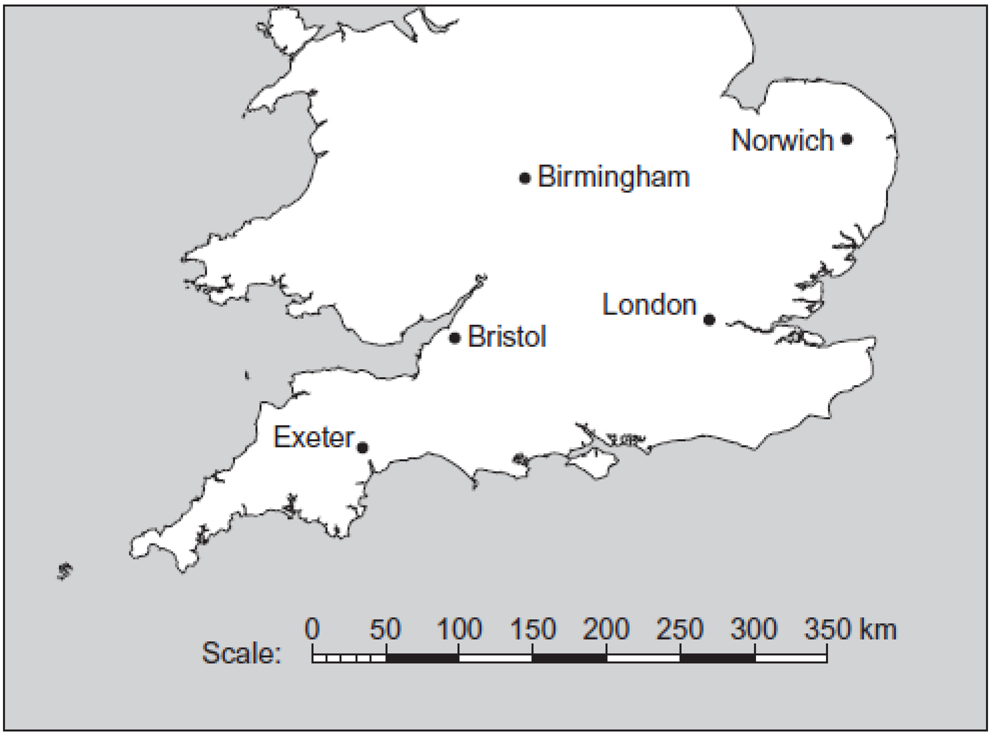
(b) Use your drawing to work out the actual length of the ladder.

Answer ______________________________ metres

**(1)**

**(Total 3 marks)**

**Q8.**




Work out the straight line distance between Exeter and Norwich.
Give your answer in kilometres.

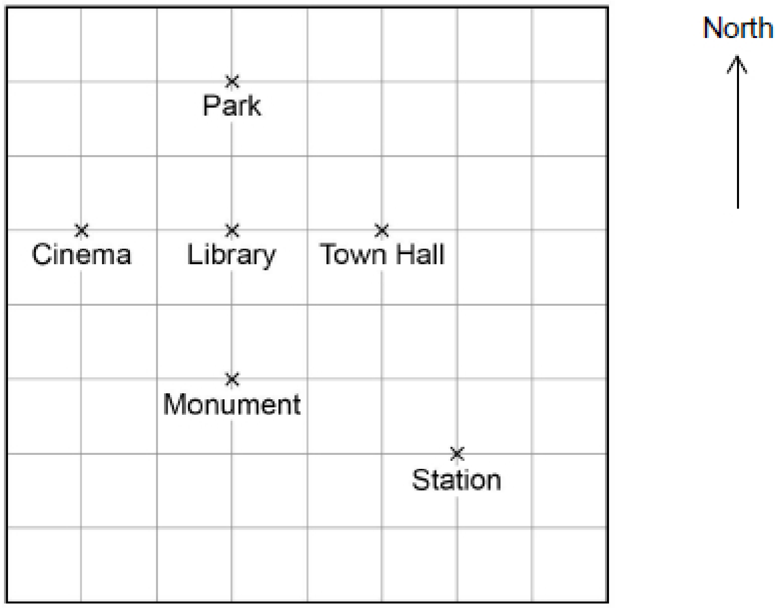
Answer ______________________________ km

**(Total 3 marks)**

**Q9.**

Here is a map of a town.

Scale: 1 cm represents 200 m




(a) Which place is exactly North West of the Station?
Circle your answer.

Cinema    Town Hall    Library    Monument

**(1)**

(b) Circle the three-figure bearing of the Monument from the Park.

090°    180°    270°    360°

**(1)**

(c) What is the distance, in metres, from the Cinema to the Station?

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Answer ____________________ metres

**(3)**

(d) Why might the shortest **walking** distance from the Cinema to the Station be greater than your answer to part (c)?

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**(1)**

**(Total 6 marks)**

## Q10.

On a map the distance between two towns is 6 cm.
The actual distance is 1.2 km

Work out the scale of the map as a ratio in its simplest form.

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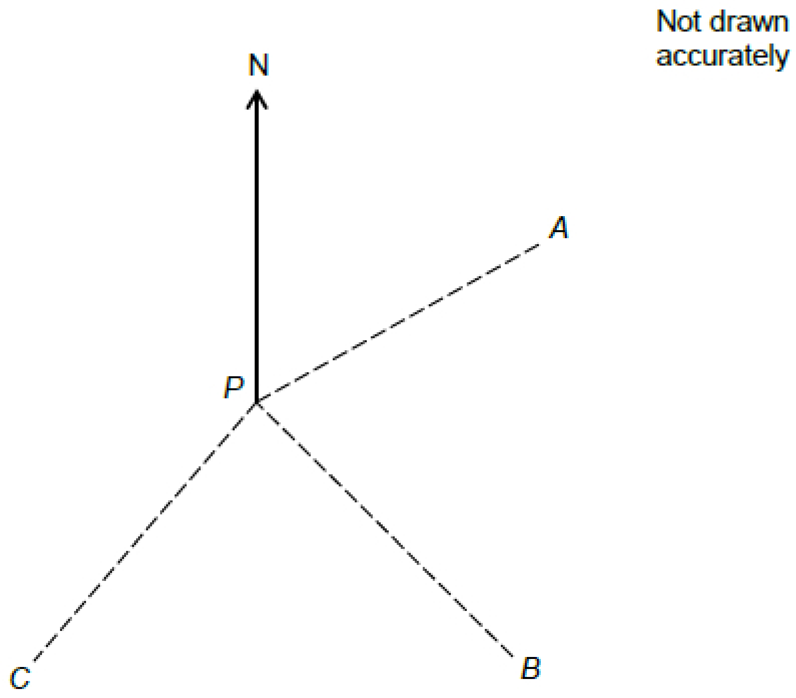
Answer ___________ : ___________

**(Total 3 marks)**

**Q11.**

Ali ($A$), Bayo ($B$) and Carly ($C$) start walking from $P$ at the same time.
They all walk at 4 mph.

Ali walks on a bearing of 075°
Bayo walks on a bearing of 165°
Carly walks on a bearing of 230°




(a) How long does it take Ali to walk 1 mile?

Give your answer in minutes.

________________________________________

________________________________________

Answer ________________________ minutes

**(1)**

(b) Bayo says,

> "After 1 hour Ali and Carly will have walked 4 miles each,
> 4 miles + 4 miles equals 8 miles,
> so they are 8 miles apart."

Is he correct?
Tick a box.

Yes ☐ No ☐

Give a reason for your answer.

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**(2)**

(c) Who is closer to Bayo after 1 hour?
Tick a box.

Ali ☐ Carly ☐

You **must** show your working.

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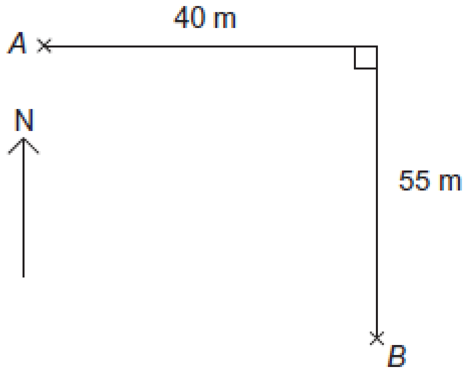
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**(2)**
**(Total 5 marks)**

**Q12.**

The diagram shows two points *A* and *B*.

Not drawn accurately




Work out the bearing of *B* from *A*.

______________________________________________________________

______________________________________________________________

______________________________________________________________

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Answer ______________________________ °

**(Total 4 marks)**